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Agricultural Memorandum No 612

Date of start of growing season in terms of height and latitude

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Agricultural memorandum 504 gave details of growing season based on 30 cm earth temperature data readily available in MO 794 together with some recent shorter period data, mainly in SW, adjusted for the same period. A request from Soil Survey (Northern Region) prompted a development of that Ag. Mem. in order to produce a more detailed map on a larger scale.

The data were re-examined and regression equations relating the start of growing season to height and latitude produced for northern England (north of Lincoln), southern England (excluding the south-west), all England (again excluding south-west). The south-west (i.e. west of a line Long Ashton to Poole) was difficult to fit because of the strong but localised warming effect of the sea and best results were obtained by incorporating longitude into the calculations.

The results were as follows:

Area	Equation	Multiple Correlation Coefficient	Standard Error of Regression
Northern England	SGS = 22.99+0.063(ht)+3.38(lat.)	0.95	3.21
Southern England (excluding SW)	SGS = 5.98+0.062(ht)+5.46(lat.)	0.91	2.83
England (excluding SW)	SGS = 6.33+0.046(ht)+5.83(lat.)	0.92	4.24
SW	SGS = 28.90+0.13(ht)-2.12(lat)-9.25(long)	0.90	5.29

where ht = height in metres
lat = latitude -50
long = longitude (west + ve)
SGS = date (1 = 1st March)

A similar exercise was performed for the end of the growing season in the North but, as this can be modified considerably by local factors, was not persued for the other areas.

Any comments or suggestions on this paper should be referred to the author.

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